



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:  
JOSEPH HONEIN

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Serial No.: 09/993,443

§ Group Art Unit: 3634

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§ Examiner: A. CHIN SHUE

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**GROUP 3600**

For: COMPOSITE SCAFFOLDING AND METHOD OF FORMING SAME

BRIEF ON APPEAL

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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I.  
REAL PARTY IN INTEREST

The real party in interest is the inventor, Joseph HONEIN.

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II.

RELATED APPEALS

There are no related appeals or interferences of applicant, Joseph HONEIN, known to appellant or appellant's legal representative which will directly or indirectly affect or be affected by or have a bearing on the Board's decision in this appeal, however USSN 09/320,228 filed 05/26/99 by Joseph Honein and Carl R. Cook was on appeal and was unintentionally abandoned and relates subject matter similar to that of this application and the decision here may have a bearing on the Board's decision in that appeal.

III.  
STATUS OF CLAIMS

Claims 11-16 remained in the application. All of the claims are rejected. Claims 11-16 are on appeal.

IV.  
STATUS OF AMENDMENTS

All amendments have been entered of record.

V.  
SUMMARY OF THE INVENTION

The present claims are those of the parent application amended as suggested by the examiner in the Examiner's Answer, in the parent application, indicating the original claims 4 and 9 would be patentable if presented in independent form. (Page 3 of the Examiner's Answer in the parent application is attached as Exhibit 1)

The present invention is a method for forming a scaffolding plank (spec., page 4, ln. 11) from two or more wooden boards by positioning the boards in side by side parallel abutment and embedding a plurality of spaced pins transversely through the boards (spec., page 5, ln. 16-19) and to increase the strength of a wooden plank by cutting the plank longitudinally, positioning the resulting sections in side by side parallel abutment with the

wood gains in alternating directions and embedding a plurality of spaced pens in the sections (spec., page 5, ln. 19-22).

The boards are compressed laterally by an external force in the boring and pinning steps such that after the manufacture when the boards are no longer compressed, a tension is created that holds the boards in tight abutment (spec., page 8, ln. 17-22). The bore preferably extends through the boards (spec., page 9, lines 1-2) and the pins are preferably forced through the bore from the opposite side to the drill, while the axis of the drill bit and the pin press are aligned (spec., page 12, ln. 14-20)

The scaffolding plank is preferably formed by holding the wooden boards in tight side to side abutment by spaced pins that have a cam means thereon (spec., page 7, ln. 1-2). The pins are preferably square cross sections which are twisted to form a helical thread (spec., page 8, ln. 12). The threads comprise the cam and as the pin is pressed into the wooden boards, the helical threads cause the pin to rotate and pull the boards together (spec., page 8, ln. 17).

The boards may be compressed vertically which maintains the relative position of the boards while the pins are embedded (spec., page 11, ln. 10-13). After the pin is embedded into the boards, the vertical and horizontal compression means are disengaged (spec., page 13, ln. 1-2).

The planks made by this method exhibit equal or better properties compared to a similar single plank and a laminated plank (FIGURE 8).

## VI. ISSUE

ARE THE CLAIMS OBVIOUS UNDER 35 USC 103(a) OVER ANGUERA '191 IN

## **VIEW OF EITHER LARSON OR ANGUERA '395, AND LEWIS?**

### **VII. GROUPING OF CLAIMS**

For the purposes of appeal the claims are grouped as:

Group I, claims 11-13

Group II, claims 14-16

### **VIII. ARGUMENT**

#### **A. THE REJECTION**

Claims 11-16 stand rejected under 35 USC § 103(a) as being unpatentable over Anguera '191 in view of either Larson or Anguera '395, and Lewis.

#### **B. THE ANALYSIS**

Group I, claims 11-13

All of these claims require the steps of:

1. positioning the wooden boards side by side,
2. compressing the boards vertically,
3. concurrently compressing the boards transversely,
4. revolvingly embedding at least three spaced apart helical pins transversely through the boards
5. removing the compression.

Group II Claims 14-16

All of these claims require the steps of:

1. positioning the wooden boards side by side with the wood grain *having alternating direction*,

2. compressing the boards vertically,
  3. concurrently compressing the boards transversely,
  4. revolvingly embedding at least three spaced apart helical pins transversely through the boards
5. removing the compression.

The application of 35 USC §103 to the issue of patentability has been considered by the Supreme Court of the United States in *Graham v. John Deere* 148 USPQ 459 (S. Ct. 1966). The Supreme Court held that 35 USC §103 requires a three-pronged inquiry. It is necessary to:

- (i) determine the knowledge disclosed in the prior art;
- (ii) determine the differences between the teaching of the prior art and the claims at issue; and
- (iii) resolve the differences between the teaching of the prior art and the claims in question on the level of the ordinary skill in the art field.

#### COMPARISON OF ANGUERA '191 AND INVENTION

I. Anguera '191 combines green wood strips of varying length disposed in an upright position in a row with other green strips, thus describing the wood grain of each strip being aligned in the same direction for each strip (plank).

Whereas:

Claim 11, 12 and 13 claims, "positioning a plurality of wooden boards in side to side abutment, each of said wooden boards including two sides and a lengthwise direction, each of said sides being flat and having a height and said height being the smallest dimension of said wooden boards"; and

Claim 14, 15 and 16 claims , “cutting said plank longitudinally into a plurality of wooden plank sections; positioning said plurality of wooden plank sections in side to side parallel abutment with the wood grains of said plurality of wooden plank sections having alternating directions”. The analysis above Group I applies here also, with the added distinction that no reference suggests the alternating grain positioning.

II. Anguera '191 clamps the boards.

Whereas applicant (all claims) concurrently compresses said plurality of wooden boards vertically and transversely before revolvingly embedding at least three spaced apart helical pins. Fig. 13 is a cross section the work clamp and Fig. 14 shows the wood claim 168, this does not disclose any degree of compression.

III. Anguera '191 drills a bore, moves the work piece and inserts a pin into a previously drilled hole.

Whereas applicant (all claims) claims “positioning a drill at a lateral outside edge of said plurality of wooden boards and a pin press at an opposite outside edge of said plurality of wooden boards:

    said drill having a drilling axis;

    said pin press having a pin press axis;

    said drilling axis and said pin press axis substantially aligned;

    drilling holes transversely through said plurality of wooden boards” and

“revolvingly embedding said at least three spaced apart pins transversely through said plurality of wooden boards by forcing said helical pins through said holes, normal to said sides of said plurality of wooden boards, and normal to said lengthwise direction of said plurality of wooden boards” and further

"said helical pins having an outer thread diameter and further having a root thread diameter, said drilled hole having a hole diameter; and said hole diameter greater than said thread root diameter and less than said outer thread diameter"

IV. Both Anguera '191 and the applicant use pins with a square cross section and spiral threads.

Thus out of the first 4 compared elements, only one is the same, the other steps are drastically different. Note that the compression recited in the present claims is more than the result of mere clamping. in the present specification on page 12, lines 1-3, it is stated "cylinder 128 engages and compresses the boards 20. Therefore, in addition to providing the desired compression.....maintains the relative position of the boards 20 during drilling..." and at page 13 lines 2-4, " With the boards 20 no longer compressed, the pins so imbedded within the boards 20 experience a tensioning due to the boards 20 returning to their noncompressed state."

V. Thus, the limitation in the claims,"whereby said drilling step and said forcing step are sequentially performed while said plurality of wooden boards are laterally and vertically compressed and the helical threads of said plurality of helical pins become anchored within each of said wooden boards thereby fixing and maintaining said wooden boards in relative position", describes method of producing a product which is not contemplated by the prior art nor producible by following Anguera '191 as recognized by the examiner.

The examiner urges that Larsen and Lewis or Anguera '395 and Lewis in combination with Anguera '191 cure the defects of Anguera '191 and thereby make the present invention as claimed obvious.

LEWIS

Lewis could be urged to suggest the currently boring and pin insertion, which would not cure the deficiencies discussed in I, II, or V above.

#### LARSEN AND LEWIS

Larsen discloses a scaffolding with two adjacent planks having a pin extending there through the plank. According to the translation, "the surface elements comprise multiple planks arranged side by side and penetrated and held together by a transverse connecting iron at each end of the element" (page 2, third paragraph). No information is provided on the process of attaching the elements together. However, since the walkway is to be "assembled easily and quickly", the pins are loosely fitted into the boreholes, so they can be removed and the system assembled elsewhere. This disclosure has no suggestion to any aspect of the present invention and is of only interest as "state of the art". It does not cure in any manner the defects of the elements I, II, III, or V discussed above and adds nothing to Lewis.

#### ANGUERA '395 AND LEWIS

Anguera '395 discloses a very specific metal key that is to be driven into boreholes to thereby join adjacent boards together. This disclosure has little to add to the Anguera '191 disclosure other than one might substitute the specific key for the pins disclosed by Anguera '191, which of course does not cure any of the deficiencies noted above and adds nothing to Lewis. The point is that there must be some motivation to make the substitution of proposed by the examiner. Anguera '395 basically carries out the same process as Anguera '191, but in a less efficient manner.

#### C. The Issue

ARE THE CLAIMS OBVIOUS UNDER 35 USC 103(a) OVER ANGUERA '191 IN

## VIEW OF EITHER LARSON OR ANGUERA '395, AND LEWIS?

There is no *per se* rule of obviousness that eliminates the need for fact-specific analysis of claims and the prior art and that the use of such a rule must stop. See *In re Ochiai*, 37 USPQ2d 1127, 1132 (Fed. Cir. 1996). The examiner is not applying the prior art to the claims because there is no disclosure of the specific limitations, but rather using silence as evidence. The examiner's bare statement that steps are "obvious mechanical expedients" is completely unsupported by any evidence and therefore has no weight. Silence in a reference is not a proper substitute for an adequate disclosure of facts. *In re Burt*, 148 USPQ 548 (CCPA 1966). The examiner has failed to make out a *prima facie* case of obviousness because he has used a legal conclusion as evidence. Inventions are obvious over references and the examiner has not cited any reference to support his legal conclusion of "obvious mechanical expedients." (See *In re Bezombes*, 164 USPQ 387, 391 (CCPA 1970)).

Rejections based on §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner has the initial duty of supplying the factual basis for the rejection. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. See *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Even if the teachings of four references can be combined, there is no factual basis from which to conclude that the process resulting from the combined teachings would include the combination of elements of appellant's invention.

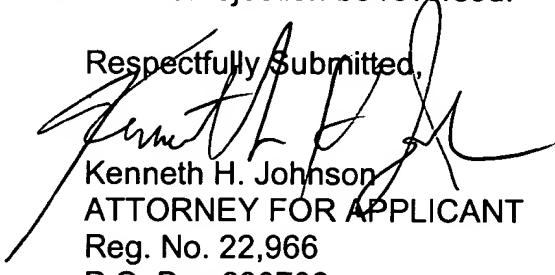
A determination of obviousness must involve more than indiscriminately combining prior art; a motivation or suggestion to combine the art must exist. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.* 221 USPQ 929,933 (Fed. Cir. 1984). Such a suggestion may come from the references themselves, from references and disclosures in references known to be of importance in the particular field, and from the nature of the problem, leading inventors to look to references to possible solutions for the problem. *Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.*, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). In the present situation the record contains no evidence of a motivation (the mere assertion by the examiner that it would be obvious to make the combination not being one of the enumerated methods to present such evidence).

The present invention can be achieved only by fallacious inductive reasoning to combine the cited references.

#### D. Conclusion

There is no motivation or suggestion to make the combination of art proposed for either of two claim groupings. It requested that the final rejection be reversed.

Respectfully Submitted,

  
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IX.  
APPENDIX

A. CLAIMS ON APPEAL

11. A method for forming a scaffolding plank from two or more wooden boards, comprising:

positioning a plurality of wooden boards in side to side abutment, each of said wooden boards including two sides and a lengthwise direction, each of said sides being flat and having a height and said height being the smallest dimension of said wooden boards;

compressing said plurality of wooden boards vertically so that the top surfaces of said plurality of wooden boards are co-planar and concurrently compressing said plurality of wooden boards transversely before revolvingly embedding at least three spaced apart helical pins;

positioning a drill at a lateral outside edge of said plurality of wooden boards and a pin press at an opposite outside edge of said plurality of wooden boards:

    said drill having a drilling axis;

    said pin press having a pin press axis;

    said drilling axis and said pin press axis substantially aligned;

    drilling holes transversely through said plurality of wooden boards

    revolvingly embedding said at least three spaced apart pins transversely through said plurality of wooden boards by forcing said helical pins through said holes, normal to said sides of said plurality of wooden boards, and normal to said lengthwise direction of said plurality of wooden boards, each of said at least three spaced apart helical pins having helical threads said helical pins having an outer thread diameter and further having a root

thread diameter, said drilled hole having a hole diameter; and said hole diameter greater than said thread root diameter and less than said outer thread diameter; and

subsequently removing the compression on said plurality of wooden boards;

whereby said drilling step and said forcing step are sequentially performed while said plurality of wooden boards are laterally and vertically compressed and the helical threads of said plurality of helical pins become anchored within each of said wooden boards thereby fixing and maintaining said wooden boards in relative position.

12. A method as in claim 11 further comprising aligning said plurality of wooden boards such that their ends form a substantially continuous surface before revolvingly embedding said at least three spaced helical pins.

13. A method as in claim 11 further comprising:  
each of said at least three spaced helical pins is a twist lock pin having a square cross section.

14. A method of increasing the strength of a wooden scaffolding plank comprising the steps of:

cutting said plank longitudinally into a plurality of wooden plank sections;  
positioning said plurality of wooden plank sections in side to side parallel abutment with the wood grains of said plurality of wooden plank sections having alternating directions, each of said wooden plank sections including two sides and a lengthwise direction, each of said sides being flat and having a height and said height being the smallest dimension of said wooden plank sections;

compressing said plurality of wooden boards vertically so that the top surfaces of said plurality of wooden boards are co-planar and concurrently compressing said plurality

of wooden boards transversely before revolvingly embedding at least three spaced helical pins;

positioning a drill at a lateral outside edge of said plurality of wooden boards;

said drill having a drilling axis;

a pin press having a pin press axis;

said drilling axis and said pin press axis substantially aligned;

drilling holes transversely through said plurality of wooden boards, said helical pins having an outer thread diameter and further having a root thread diameter, said drilled holes having a hole diameter; and  
said hole diameter being greater than said thread root diameter and less than said outer thread diameter;

revolvingly embedding said at least three spaced helical pins transversely through said plurality of wooden plank sections by forcing said helical pins through said holes, normal to said sides of said plurality of wooden plank sections, and normal to said lengthwise direction of said plurality of wooden plank sections, each of said at least three spaced helical pins having helical threads; and

subsequently removing the compression on said plurality of wooden boards;

whereby said drilling step and said forcing step are sequentially performed while said plurality of wooden boards are laterally and vertically compressed and the helical threads of said at least three spaced helical pins become anchored within each of said plurality of wooden plank sections thereby fixing and maintaining said wooden plank sections in relative position.

15. A method as in claim 14 further comprising aligning said plurality of wooden

plank sections such that their ends form a substantially continuous surface before revolvingly embedding said at least three spaced helical pins.

16. A method as in claim 14 wherein each of said at least three spaced helical pins is a twist lock pin having a square cross section.

**B. EXHIBIT**

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Art Unit: 3634

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "said pin presss" lacks antecedent basis.

Claims 1, 3, 5-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson in view of Webster and Bennett. Larson shows the claimed plank with the exception of the claimed pinning of the boards. Webster shows the claimed pinning. Bennett shows a compressor to enable orthogonal clamping. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Larson with a pinning means as claimed to enhance the integrity of his plank and to provide a compressor for clamping and aligning his boards as claimed. The claimed method would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the modified plank of Larson. Furthermore, to use the conventional square cross section pins, for their known advantage, would have been an obvious mechanical expedient, and to alternate the grains of the boards as claimed, would have been an obvious mechanical expedient, as such is a conventional practice to enhance the integrity of the plank.

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent from including all of the limitations of the base claim and any intervening claims.



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